भारतीय मानक
Indian Standard

IS 17504 : 2021

इमल्सिफाइड सौसेस — विशिष्टि

Emulsified Sauces — Specification

ICS 67.230

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भारतीय मानक ब्यूरो
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Ready-to-Eat Foods and Specialized Products Sectional Committee, FAD 24

FOREWORD

This Indian Standard was adopted by Bureau of Indian Standards, after draft finalized by the Ready-to-Eat Foods and Specialized Products Sectional Committee had been approved by the Food and Agriculture Division Council.

Emulsified sauces bring together elements that do not readily mix or stay mixed on their own. Emulsified sauce includes Sauces, gravies and dressings based, at least in part, on a fat- or oil-in water emulsion Examples include: salad dressing (for example, French, Italian, Greek, ranch style), fat-based sandwich spreads (for example, mayonnaise with mustard), salad cream, fatty sauces and snack dips (e.g., bacon and cheddar dip, onion dip). The description and key requirements mentioned in this standard are as per Sec. 169.140 of FDA on Mayonnaise.

In the formulation of this standard, due consideration has been given to the provisions of the *Food Safety and Standards Act*, 2006 and the Rules framed thereunder and the *Legal Metrology (Packaged Commodities) Rules*, 2011. However, this standard is subject to the restrictions imposed under these, wherever applicable.

The committee responsible for the formulation of this standard is given at Annex A

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

EMULSIFIED SAUCES — SPECIFICATION

1 SCOPE

This standard prescribes the requirements and methods of test for mayonnaise/emulsified sauce (low fat, medium fat and high fat).

2 REFERENCES

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

IS No.	*Title*
253 : 2014	Specification for edible common salt (*fourth revision*)
2491 : 2013	Food hygiene — General principles — Code of practice (*third revision*)
5402 (Part 1) : 2021/ISO 4833-1 : 2013	Microbiology of the food chain — Horizontal method for the enumeration of microorganisms: Part 1 Colony count at 30 °C by the pour plate technique
5402 (Part 2) : 2021/ISO 4833-2 : 2013	Microbiology of the food chain — Horizontal method for the enumeration of microorganisms: Part 2 Colony count at 30 °C by the surface plating technique
5403 : 1999	Method for yeast and mould count of foodstuffs and animal feeds (*first revision*)
5887	Methods for detection of bacteria responsible for food poisoning:
(Part 1) : 1976	Isolation, identification and enumeration of *Escherichia Coli* (*first revision*)
(Part 2) : 1976	Isolation, identification and enumeration of *Staphylococcus aureus* and faecal *Streptococci* (*first revision*)
(Part 3) : 1999	General guidance on methods for the detection of salmonella (*second revision*)
(Part 4) : 1999	Isolation and identification of *Clostridium perfringens* (*Clostridium welchii*) and *Clostridium botulinum* and enumeration of *Clostridium perfringens* (*second revision*)
(Part 5) : 1976	Isolation, identification and enumeration of *vibrio cholera* and *vibrio parahaemolyticus* (*first revision*)
(Part 7) : 1999	General guidance on methods for isolation and identification of *Shigella*
12569 : 1989	Potato french fries — Specification
13844 : 2003/ ISO 750 : 1998	Fruit and vegetable products — Determination of titratable acidity (*first revision*)
IS 16021 : 2012	Good manufacturing practices (GMP) — Requirements for organizations in the food processing sector

3 DESCRIPTION

Mayonnaise is the emulsified semisolid food prepared from vegetable oil(s), one or both of the acidifying ingredients (*see* **4.5.1**), and one or more of the egg yolk-containing ingredients (*see* **4.5.1(c)**).

4 REQUIREMENTS

4.1 Quality Requirements

4.1.1 The emulsified sauces shall be prepared by refined vegetable oil. The vegetable oil(s) used may contain an optional crystallization inhibitor as specified in **4.5.2.7**. Mayonnaise contains shall not be less than 65 percent by weight of vegetable oil.

4.1.2 The oil/fat content may vary from 10 percent to 75 percent depending upon type of product (Low fat, medium fat, high fat mayonnaise).

4.1.3 All the ingredients from which the food is fabricated shall be safe and suitable. Mayonnaise may be mixed and packed in an atmosphere in which air is replaced in whole or in part by carbon dioxide or nitrogen.

4.3 Food Additives

The product covered under this standard may contain food additive(s) as per FSSR (Food Product Standards and Food Additives) Regulations, 2011.

4.4 Contaminants, Toxins and Residues

The products covered in this standard shall comply with Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011.

4.5 Ingredients

4.5.1 *Acidifying Ingredients*

(a) Any vinegar or any vinegar diluted with water to an acidity, calculated as acetic acid, of not less than 21/2 percent by weight, or any such vinegar or diluted vinegar mixed with an optional acidifying ingredient as specified in **4.5.2.6.** For the purpose of this paragraph, any blend of two or more vinegars is considered to be a vinegar.

(b) Lemon juice and/or lime juice in any appropriate form, which may be diluted with water to an acidity, calculated as citric acid, of not less than 21/2 percent by weight.

(c) *Egg yolk-containing ingredients.* Liquid egg yolks, frozen egg yolks, dried egg yolks, liquid whole eggs, frozen whole eggs, dried whole eggs, or any one or more of the foregoing ingredients listed in this paragraph with liquid egg white or frozen egg white.

4.5.2 *Other Optional Ingredients*

4.5.2.1 Salt used shall confirm to IS 253.

4.5.2.2 Nutritive carbohydrate sweeteners.

4.5.2.3 Any spice (except saffron or turmeric) or natural flavoring provided it does not impart to the mayonnaise a color simulating the color imparted by egg yolk.

4.5.2.4 *Monosodium glutamate*

4.5.2.5 Sequestrant (s), including but not limited to calcium disodium EDTA (calcium disodium ethylenediamine- tetraacetate) and/or disodium EDTA (disodium ethylenediaminetetraacetate), may be used to preserve color and/or flavor.

4.5.2.6 Citric and/or malic acid in an amount not greater than 25 percent of the weight of the acids of the vinegar or diluted vinegar, calculated as acetic acid.

4.5.2.7 Crystallization inhibitors, including but not limited to oxystearin, lecithin, or polyglycerol esters of fatty acids.

4.6 Hygiene

The products covered by the provisions of this standard shall be manufactured, packed and stored under hygienic conditions in licensed premises (*see* IS 2491). To the extent possible in good manufacturing practice (*see* IS 16021), the cleared product shall be free from objectionable matter.

4.7 Microbiological Requirements

The products covered under this standard shall conform to microbiological requirements as given below.

4.7.1 Yeast and mould count shall be less than 100 cfu/g when tested according to method specified in IS 5403. Initial suspension of a specified quantity (for example 0.1 g or 1 g) may be used to prepare dilutions.

4.7.2 TVC shall be less than 1 000 cfu/g when tested according to method specified in IS 5402. Initial suspension of a specified quantity (for example 0.1 g or 1 g) may be used to prepare dilutions

4.7.3 *Staphylococcus aureus* shall be absent in 25 g of sample when tested according to method specified in IS 5887 (Part 2). Initial suspension of a specified quantity (for example 25 g) may be used to prepare dilutions.

4.7.4 *Salmonella* shall be absent in 25 g of sample when tested according to method specified in IS 5887 (Part 3). Initial suspension of a specified quantity (for example 25 g) may be used to prepare dilutions.

4.7.5 *Shigella* shall be absent in 25 g of sample when tested according to method specified in IS 5887 (Part 7). Initial suspension of a specified quantity (for example 25 g) may be used to prepare dilutions.

4.7.6 *Clostridium botulinum* shall be absent in 25 g of sample when tested according to method specified in IS 5887 (Part 4). Initial suspension of a specified quantity (for example 25 g) may be used to prepare dilutions.

4.7.7 *E. coli* shall be absent in 1 g of sample when tested according to method specified in IS 5887 (Part 1). Initial suspension of a specified quantity (for example 0.1 g or 1 g) may be used to prepare dilutions.

4.7.8 *Vibrio Cholera shall* be absent in 25 g/of sample when tested according to method specified in IS 5887 (Part 5). Initial suspension of a specified quantity (for example 25 g) may be used to prepare dilutions.

5 PACKING AND MARKING

5.1 Packing

5.1.1 The product shall be packed and labeled as stipulated under the *Legal Metrology* (*Packaged Commodities*) *Rules*, 2011 as well as in accordance with requirements under *Food Safety and Standards* (*Packaging and Labeling*) Regulations, 2011.

5.1.2 The material shall be packed in new cans, jars, canisters, bottles, Aluminum, PET containers and it shall be securely sealed. It can also be packed in aseptic and flexible packaging material having food grade quality conforming to the standards laid down by BIS.

The container shall be well filled with the product and shall occupy not less than 90.0 percent of the water capacity of the container, when packed in the rigid containers.

5.1.3 The water capacity of the container is the volume of distilled water at 20 ºC which the sealed container is capable of holding when completely filled.

5.2 Marking

5.2.1. Each package shall be suitably marked as to give the following information:

a) Name of the material;
b) Month of manufacture;
c) Name and address of the manufacturer;
d) Batch or code number;
e) Net quantity;
f) Maximum retail price inclusive of all taxes;
g) Best before……..month…….year; and
h) Any other information required under the *Legal Metrology (Packaged Commodities) Rules*, 2011 and the *Food Safety and Standards (Packaging and Labelling) Regulations*, 2011.

5.3 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

ANNEX A

(*Foreword*)

COMMITTEE COMPOSITION

Ready-to-Eat Food and Specialized Products Sectional Committee, FAD 24

Organization	*Representative(s)*
Central Institute of Post Harvest Engineering and Technology, (CIPHET), Ludhiana	Dr R. K. Singh (***Chairman***)
Agricultural & Processed Food Products Exp. Dev. Authority (APEDA), New Delhi	Shri Upender Kumar Vats
All India Food Processors Association, New Delhi	Dr Vaibhav Kulkarni Dr A. K. Tyagi (*Alternate*)
Central Institute of Post-Harvest Engineering and Technology, (CIPHET), Ludhiana	Dr Mridula Devi
CONCERT, Chennai	Ms Nirmala Desikan Ms R. Kalyani (*Alternate*)
Confederation of Indian Food Trade & Industry, New Delhi	Mr Krishna Kumar Ms Priyanka Gupta (*Alternate*)
Central Food Technological Research Institute, Mysore	Dr P. Prabhasankar Dr Jyothi Lakshmi (*Alternate*)
Defense Food Research Laboratory, Mysore	Dr A. S. Bawa Dr (Mrs) K. S. Premavalli (*Alternate*)
Federation of Biscuit Manufacture of India, New Delhi	Shri Amitabh Tiwari Shri Devraj Dabas (*Alternate*)
Food Safety & Standards Authority of India, New Delhi	Ms Ruby Mishra
Indian Agricultural Research Institute, New Delhi	Dr Dolly Wattal Dhar Dr Sunil Pabbi (*Alternate*)
Indian Confectionery Manufacturer Association, Noida	Shri P. Misra
Indian Institute of Packaging, Mumbai	Dr N. C. Saha Dr Tanweer Alam (*Alternate*)
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Nestle India Limited, Gurgaon	Dr Anirudha Chhonkar Ms Tulika Shukla (*Alternate*)
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BIS Directorate General	Shri P. Rajesh, Scientist 'E' and Head (FAD) [Representing Director General (*Ex-officio*)]

Member Secretary

Shri Rajpal
Scientist 'C' (FAD), BIS

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